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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/596,826	06/26/2006	Genji Imai	WAKAB92.004APC	1989

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EXAMINER	
MCCLENDON, SANZA L	
ART UNIT	PAPER NUMBER
1796	

NOTIFICATION DATE	DELIVERY MODE
04/03/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/596,826	IMAI, GENJI	
	Examiner	Art Unit	
	Sanza L. McClendon	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 June 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☒ Claim(s) *20* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 June 2006* is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *06/06; 2/08*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-6, 9-11, 14-17 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-2, 5, and 7-24 of U.S. Patent No. 7,081,486. Although the conflicting claims are not identical, they are not patentably distinct from each other because they appear to comprise overlapping subject matter. The primary difference is the instant claimed method carries out polymerization of at lease one photopolymerizable precursor that

comprises a photocurable compound having two or more unsaturated bonds, while the method of US'486 has a photopolymerization precursor it fails to specify that said precursor is a photocurable compound having at least two unsaturated bonds. However, US'486 set forth in claims 9-11 set forth a bismaleimide compound as the photopolymerizable precursor useable in the method. This has two ethylenically unsaturated bonds. Therefore it is deemed that any person skilled in the art using US'486 would be in possession of the instantly claimed invention.

3.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1-6, 9-11, 14-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Imai et al (7,081,486).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

6. Imai et al sets forth method for producing polymer comprising photopolymerization of one or more photopolymerizable polymerization precursors by irradiation in a supercritical or subcritical fluid--see abstract. Said polymers formed by this method can have "furry protrusion", which is a polymer having one or more protrusions, such as brush polymers--see column 5, lines 32-45. Said polymers comprising these furry protrusions can be formed on a base material--see column 6, lines 32-33. Said fluids can be found in column 6, lines 61 to column 7, line 7. It is deemed that claims 4-5 can be found column 24, lines 45 to column 25, line 2. In column 9, lines 19-30, Imai et al teaches adding additives to the precursor before polymerization. Additionally, Imai et al set forth adding other resins, copolymerizing, and changing the precursor during polymerization of the polymer precursors to change the resulting polymer formed--see columns 21, lines 64 to column 22, line 2 and column 27, lines 20-25. Imai et al sets forth polymers having protrusion furry whose height is 0.1 times or more as much as the diameter, and is 10 nm or more or a polymer having furry protrusions whose height is 1 time or more and is 1 microns or more, and up to 5 time or more the diameter and is 50 microns or more—see column 26, lines 45-55.. This is deemed to anticipate the instantly claimed invention.

7. Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

8. Claims 1-8, 14-15, and 18-19 are rejected under 35 U.S.C. 102(a) as being anticipated by Imani (7,416,707).

9. Imai et al sets forth method for producing polymer comprising photopolymerization of one or more photopolymerizable polymerization precursors by irradiation in a supercritical or subcritical fluid--see abstract. Said polymers formed by this method can have "furry protrusion", which is a polymer having one or more

protrusions, such as brush polymers. Said polymers comprising these furry protrusions can be formed on a base material. Said fluids can be found in column 9, lines 60 to column 10, line 5. It is deemed that claims 4-5 can be found though out the disclosure and the figures. In column 12, lines 34-61, Imai et al teaches adding additives to the precursors before polymerization, such as metal, fillers, and others to change the physical properties of the polymer. In the examples, Imai teaches polymerization of a polyether bismaleimide ester and an organo-platinum complex in a super critical fluid (carbon dioxide) by exposure to irradiation. This is deemed to anticipate the instantly claimed invention.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

12. Claims 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Imai et al (both as cited above).

13. Imai et al is deemed to anticipate the general conditions of the instant claims; however, Imai et al does not specifically teach obtaining a polymer having water-repellant function and having the defined contact angle. However, the examiner deems that Imai et al sets forth adequately methods of making polymer and that said polymers can be tailored by the addition of the types of precursor components and/or by the addition of other components and additives. Therefore, it is deemed with the

teachings of the reference and the skill level of an ordinary artisan, it is possible for any artisan (skilled) to obtain/make any by type of polymer having the desired properties by the appropriate choice of monomers and additives.

Allowable Subject Matter

14. Claim 20 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sanza L. McClendon whose telephone number is (571) 272-1074. The examiner can normally be reached on Monday through Friday 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sanza L McClendon/
Primary Examiner,

Art Unit 1796

SMc